

Technical Computing

Discover Your Parallel Universe

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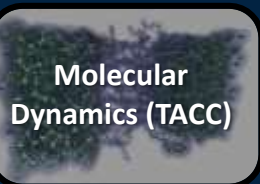
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TO COMPETE, YOU MUST COMPUTE!



Technical Computing: The Fundamental Tool for Breakthroughs

Governments & Research



Discovery

Commercial/Industrial



Business Transformation

New Users – New Uses



*From
Diagnosis to
personalized
treatments
quickly*

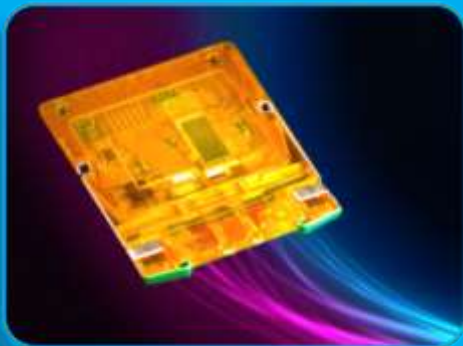
*"The Secret Life
of Data"
Genevieve Bell, Intel
Keynote SC'13*

Big Data Analytics

To Compete You Must Compute

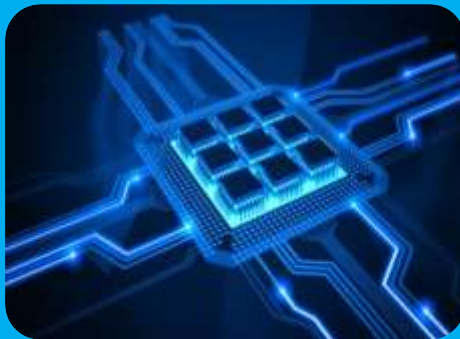
Intel's Path Forward

Innovation



Investing to enable
unprecedented breakthroughs
across the system

Integration



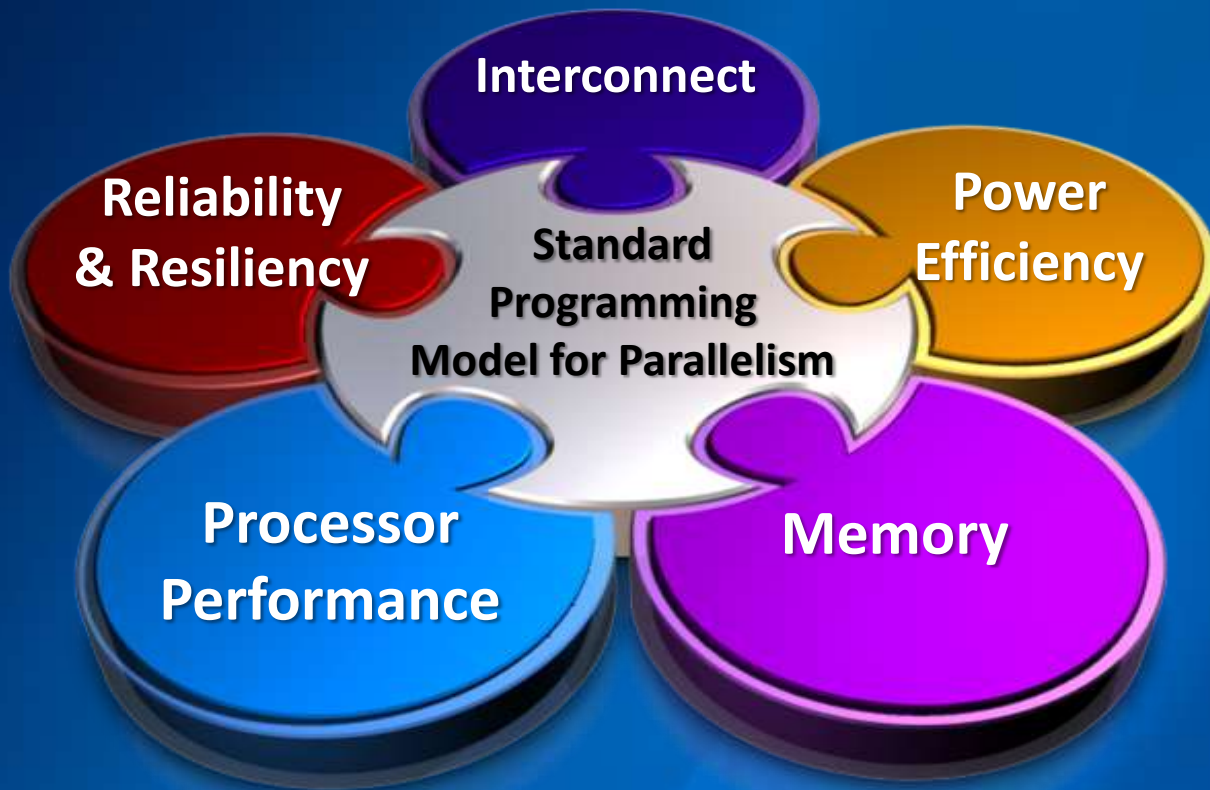
Improving system level cost,
power, density, scalability &
performance

Ecosystem



Partnering with the
worldwide ecosystem to
accelerate pace of discovery

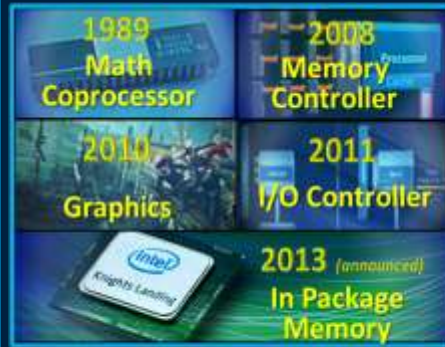
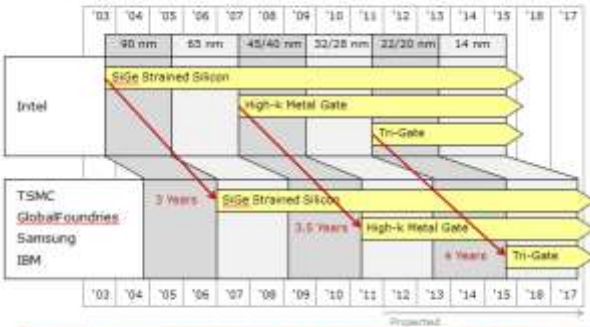
Innovation



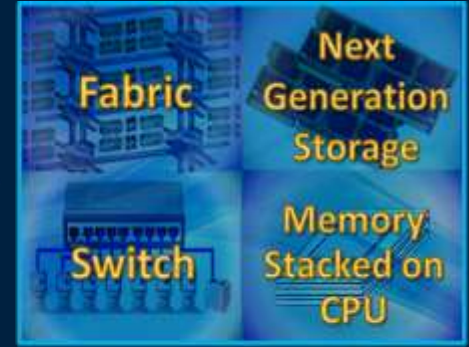
Integration Is The Game Changer

Unprecedented Innovations Only Enabled by the Leading Edge Process Technology

Intel® Transistor Leadership



Today



Possibilities For Tomorrow

Innovation

Today



22nm process PCIe coprocessor

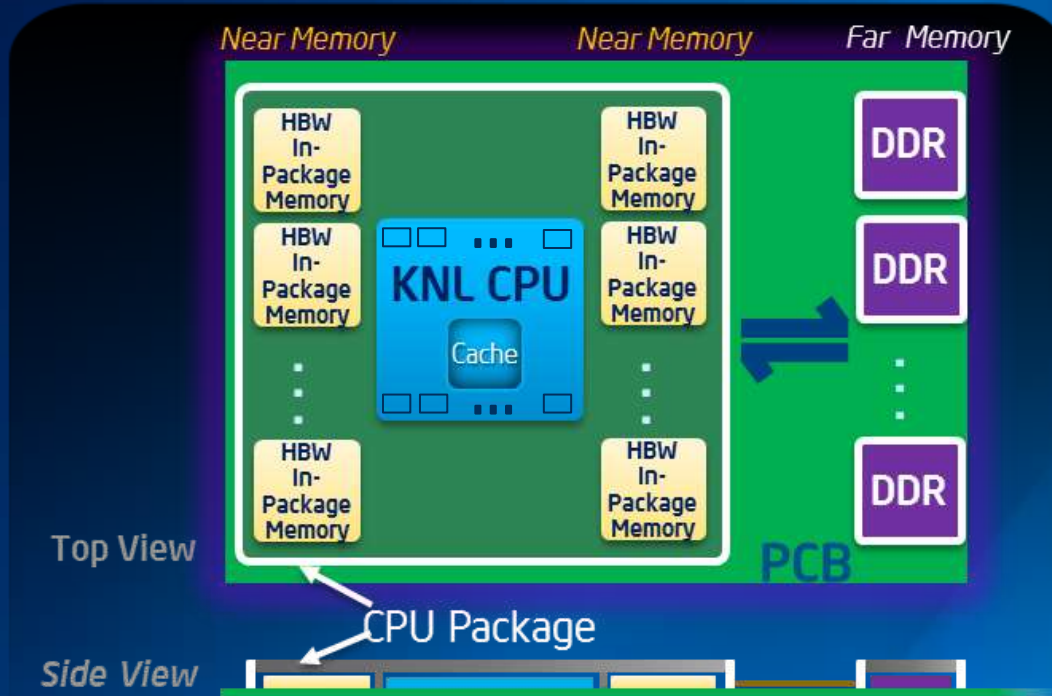
Tomorrow



14nm Standalone CPU

Innovation

High-bandwidth In-Package Memory



*Performance for
memory-bound
workloads*

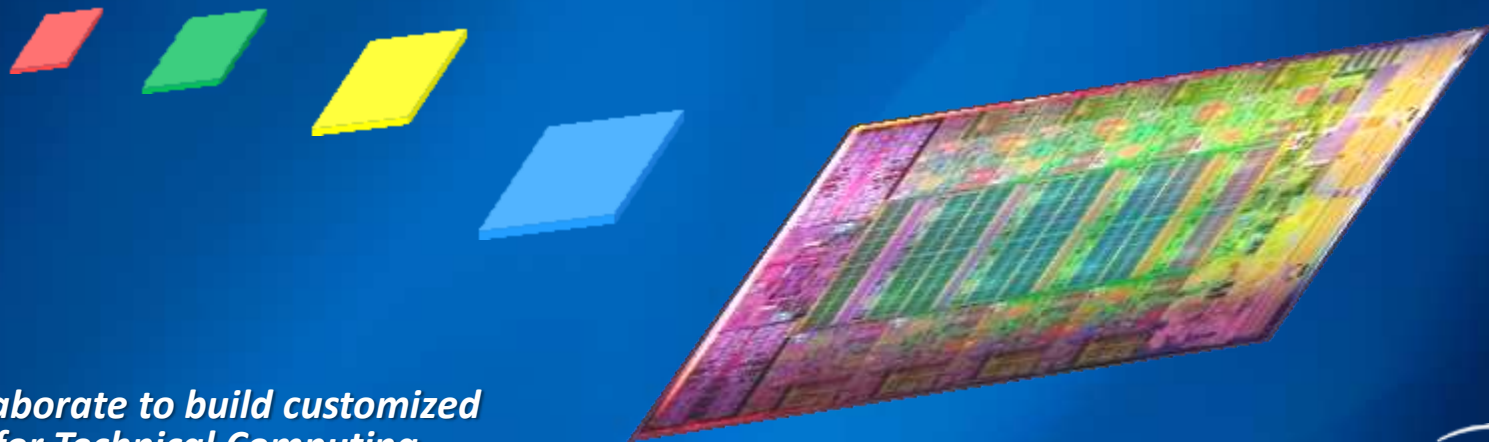
*Flexible memory
usage models*

Enabling Industry Innovation via Customization

CUSTOMER REQUESTS



CUSTOMIZED PRODUCTS



Intel will collaborate to build customized products for Technical Computing

Ecosystem

Intel Exascale Labs

Building the Next Wave of HPC Users



Intel® Parallel Computing Centers



... with more to come

*Collaborating to accelerate the
pace of discovery*

For More information visit the Intel® Academic Program at:
<http://software.intel.com/academic>



IA Ecosystem Breadth and Depth

Processors



Focused on Single Thread
and Parallel Codes

Coprocessors



Focused on Highly Parallel
and Vectorized Codes

Fabrics



*Hardware
Building Blocks*

*Software
Building Blocks*

Systems

End Customers

Linux

Open SHMEM

Open Fabrics
Compiler

OpenMPI

GCC Compiler

Many Others

Intel®
Cluster Ready

Intel®
OpenMP

Intel®
Cilk™ Plus



Customer Reference Boards
System Validation Boards



Rack Optimized Servers

Pedestals & Workstations

Software and Services

RAID Solutions

POCs & Targeted Services



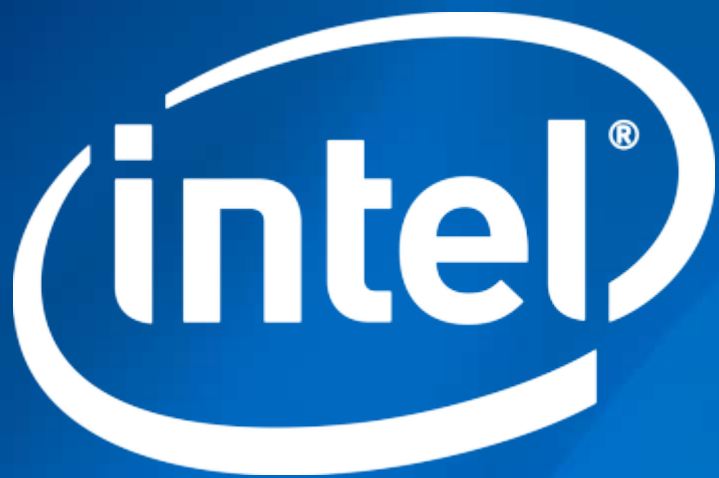
Software Tools Make Big Data Storage and Analysis Easier in HPC



- **Intel® HPC Distribution for Apache Hadoop* software**
 - Integrates Intel® Distribution for Apache Hadoop software with Intel® Enterprise Edition for Lustre* software to deliver an enterprise-grade platform for storing and processing large data sets.
- **Intel® Cloud Edition for Lustre* software**
 - Enterprises can tap into the agility of deploying an HPC solution on Amazon Web Services. Allows customers to pay for only the storage and compute power they use, as an extension of on-premise HPC solutions.
- **Announcing pre-configured & validated Intel® Enterprise Edition for Lustre* software Appliances by:**



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